



## Agricultural Plastic

### Technical Guidance Document SW-2011-G1

Large pieces of used agricultural plastic present management challenges to landfills, recyclers, and the agricultural community. This document describes the best management practices that farmers, ranchers, and local recyclers or other collectors should use when handling plastics such as grain tarps, bunker silo covers, silage and grain bags, and bale wraps and covers.

#### Background

The use of agricultural plastic may provide more flexibility than other methods of managing agricultural products. Because many of these products are designed for one-time use, large amounts of used plastic are being generated. Handlers of agricultural plastic should implement operational procedures which will:

- Recover the value of used plastics;
- Reduce litter and other nuisances; and
- Eliminate breeding habitat for mosquitoes and rodents.

#### Best Management Practices

Storing waste plastic on the farm can create hazards. These piles of plastics are unsightly, provide a breeding habitat for mosquitoes and rodents, and can be carried away by the wind, littering the landscape and impacting farming practices. Smaller pieces can pose a choking hazard for livestock and wildlife.

Options for dealing with used agricultural plastic are listed below in order from most preferable to least preferable.

1. Reduce. Consider using conventional storage options such as permanent facilities.
2. Reuse. Explore reuse options at other facilities that use tarps and bags such as lumberyards or industries. Larger grain tarps can be cut into smaller pieces for reuse in other ways.
3. Recycle. Agricultural plastic contains high-value materials that can be recycled into new

products such as plastic lumber. The advantages to recycling include: energy savings, reduced air and water pollution, and conservation of natural resources.

The manufacturer should provide information on the type of plastic used in making their product. Another option is to take a sample of the material to the recycler, or mail it to a plastics broker, to determine the type of plastic it is. Most common plastic films are made of low density polyethylene (#4 plastic).

Ask suppliers about the possibility of taking material back when new material is purchased. Many distribution centers recover a variety of recyclable material. Participate in collection programs such as those offered by manufacturers and trade associations.

4. Dispose of at a permitted landfill. Agricultural plastic may be disposed of at a municipal solid waste landfill if the landfill agrees to accept it. The landfill may decide to accept plastic only if it is properly prepared and may also charge an increased tipping fee to balance some of the costs of managing this material.

5. Bury on site. Individuals may dispose of their agricultural waste on their own property without obtaining a permit if the waste does not create a public nuisance or adversely affect public health or the environment (KSA 65-3409). When this exemption to the permitting requirement was written, the agricultural wastes being considered did not include plastics. Because agricultural

plastic is not generally biodegradable, **on-site burial is strongly discouraged**. If an individual chooses to dispose of their agricultural plastic on their own land, the plastic should be covered by 2 to 3 feet of soil. The exemption from the permitting requirement for on-site disposal **does not apply** to co-ops or other businesses.

Open burning of agricultural plastics is **NOT** allowed under Kansas regulations.

### **Managing plastic for recycling**

In the past, recycling may not have been seen as a viable option for most types of agricultural plastics due to contamination and transportation costs. These hurdles can be overcome by good management practices.

Keep the material clean to reduce its weight, making it both more economical to transfer and more valuable for recycling. Recyclers will not accept plastic containing more than 10-20% of added weight from residual vegetative matter or dirt clinging to the plastic, some may ask for less than 2-5% contamination. Leaving used agricultural plastic on the ground for extended periods or driving over the plastic with machinery increases contamination. Improve the quality of the material by cutting off the soiled plastic and disposing of it separately from the plastic collected for recycling.

### **Preparing plastic for transport**

Users can facilitate both recycling and proper disposal by managing for cleanliness and rolling the material tightly or compressing and baling. If agricultural plastics are not baled or densified, they can cause problems for the landfill operators

and take up valuable landfill space. They are also not cost effective for recyclers if loosely rolled.

Home-made wooden baler boxes or storage bags may be helpful for on-site collection prior to consolidation at the collection site. Bale the material or roll it and wrap it with poly rope for either recycling or landfiling. If using a large hydraulic baler, keep the bales under 1,200 lbs.

### **Accumulation at collection facilities**

Larger business operations, co-ops or local recyclers can facilitate recycling and landfiling by sponsoring collection programs and by acquiring baling equipment to compact used plastic for cost-efficient transport from farms. Material should be kept on a concrete or asphalt pad to make the process clean and efficient.

Discarded agricultural plastic can be picked up at storage locations by recyclers although there may be a charge for insufficient quantities. Ask other businesses, elevators, and hospitals if they generate the same type of plastic so more volume can be consolidated for the recycler. Ask recyclers/haulers who pick up cardboard if they would be willing to pick up plastic with the cardboard.

Facilities that collect agricultural plastic for recycling are allowed to stockpile the plastic to reach marketable loads. The plastic must be secured so it won't blow away, and should be stored in a manner that will keep it clean and dry. At least once a year the accumulated agricultural plastic should be transported to a recycler for processing. The frequency of transportation should be increased if the facility is accepting a large volume.

For additional information regarding the proper management of solid or hazardous waste in Kansas, you may visit the Bureau of Waste Management website at <http://www.kdheks.gov/waste/> or contact the Bureau at: (785) 296-1600, [bwm\\_web@kdheks.gov](mailto:bwm_web@kdheks.gov), or the address at the top of this document.